ACR-225
AUTOMATED CASSETTE SYSTEM
RELIABILITY, FLEXIBILITY AND UNCOMPROMISING SIGNAL QUALITY

COMPOSITE DIGITAL

AMPEX

THE MOST IMPORTANT FEATURE OF THE ACR-225 IS ITS ABILITY TO DO SEVERAL THINGS AT ONE TIME.

IMAGINE that you have a break tape to assemble, and you need it done now. But the Traffic Manager wants to edit tomorrow's playlist. Meanwhile, the cassette machine is scheduled to be playing to air throughout the next hour.

On any other machine you'd have to line up and wait.

Not on the ACR-225. Because of its *multitasking* capability, you can record, playback and edit all at the same time.

256 on-line cassette library — and a very easy and efficient system for managing them
The ACR-225 holds 256 SMPTE/EBU 19mm digital cassettes.

Each cassette is up to 32 minutes long so it can carry a larger number of spots, IDs, news segments, or entire programs.

The ACR-225 can automatically compile a complete "break tape" in minutes. It's so fast and flexible you can change events right up until just before playtime using EDIT ACTIVE. And since the recording is digital, you're insured of picture quality that matches your masters.

Just think how easy it will be with a machine that can play an entire program, including breaks, automatically.

Managing your library will be easier than ever, too, because the ACR-225 does it for you.

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■ **Cassettes are identified with their own bar code number and label. Each event on a cassette is separately identified and tracked in the system's integral database. The database can track over 50,000 events on up to 1 million different cassettes.**

Identification (house number), description, location, cue point and duration, comments and date information are all stored for 50,000 events in an internal relational PC-based database.

You also have on-line access to your playlists and the ability to switch between them. (A feature sports producers will love.)

The cassettes are automatically identified by a bar code label as they're loaded

■ **The ACR-225 holds 256 32-minute D-2 19mm cassettes. With multiple events on each cassette you have the ability to store 10,000 30-second events on-line.**

into the ACR-225, so they don't have to be played to be identified. The relational database remembers which events are on each cassette, eliminating the chance of operator error.

Building and editing playlists is simple, fast and foolproof
Playlists can be input through a keyboard, a floppy disk, or through a traffic system computer interface.

And *multi-op* means your database is always accessible. So last-minute playlist changes are a snap.

In fact playlist management is so fast and foolproof you'll soon find the ACR-225 playing a major role in *all* your station's programming.

The ACR-225 simplifies production, too. Just give it a list of events and the ACR-225 *automatically* compiles a break tape by dubbing right in the machine.

For recording and dubbing from other sources, RS-422 serial interfaces give your ACR-225 control of external VTRs. Serial communication also lets you control the ACR-225 from an external computer.

AMPEX 19mm DIGITAL VIDEOCASSETTE

■ **An efficient control panel makes operation and system set-up fast and simple. A unique interactive menu leads you through operational procedures.**

Playlist conflicts have to be recognized and solved automatically

Using AutoResolve™ software, the ACR-225 automatically recognizes *and corrects* playlist conflicts such as non-contiguous back to back events from the same cassette or short cycle times. The system creates a buffer tape (digital clone) of conflicting events or when necessary, automatically compiles an internal break tape.

Simple to learn, simple to operate

For all its capability, the ACR-225 is simple and straightforward to operate.

A unique system of interactive menus leads you through the steps of each operation. So even a non-technical operator can take advantage of all the ACR-225 has to offer, with a minimum of human error.

And these menus provide easy access to the many diagnostic and routine maintenance features and information. Real-time status and diagnostics catch problems and provide notification before they catch you.

A cassette player has to be reliable. It's the one piece of equipment in your station that directly generates income

We've used the latest in robotic design to build in the kind of reliability you can count on — day after day, year after year, with a minimum of maintenance.

The components in the cassette access robotics are designed for years of around-the-clock use. They require no manual adjustment. And they've been tested under load, for millions of operational cycles.

Unique new transport design provides fast, gentle tape handling

With conventional helical cassette transports, there's wear on the tape at the point where it loads against the scanner. This puts a limit on the number of plays you get per tape, and adds to your labor and tape costs.

By rethinking the design, we've developed a unique transport system for the ACR-225 that gently loads the tape onto the scanner at exactly the right helix height and angle. So there's virtually no damage at all to the recorded video, even after hundreds of plays.

The ACR-225 is available in three or four transport configurations. Look at them closely. Examine the craftsmanship and the precision

with which they operate. And you'll begin to understand how the ACR-225 delivers both high-end performance and long-term reliability.

You've got enough to watch over during the day, we've designed the ACR-225 to watch after itself

If a malfunction is detected, the ACR-225 automatically re-allocates its resources to keep you up and running.

In case of power failure, the ACR-225 is back on the air, fast. And since your playlist and database are in non-volatile storage, there's no fear of losing them.

Even the digital format adds to the machine's reliability. Error correction and concealment allow the ACR-225 to continue to play back video and audio that is almost impossible to distinguish from the original, even with the loss of up to two heads!

Service and support no one else can begin to match

The ACR-225 is backed by a worldwide service and support network no other manufacter can begin to match.

Expert field service, careful documentation, phone-in technical support, an innovative parts program, and operator and maintenance training all insure you get the most out of your Ampex equipment.

So if reliability, performance and transparent audio and video signal quality are all critical to your future, take a good look at the ACR-225. No other cassette player can give you as good a return on your investment.
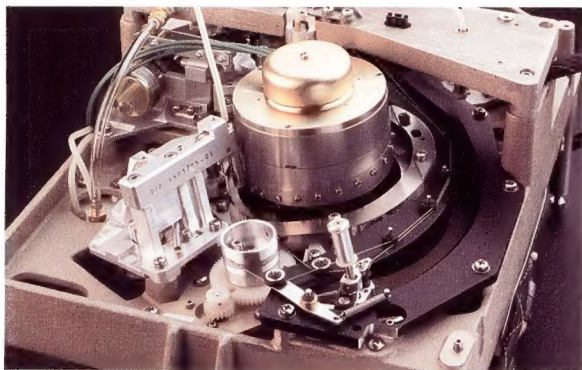
THE ACR-225.
YOU COULDN'T MAKE A BETTER
LONG-TERM INVESTMENT.

I F YOU'VE BEEN around television awhile, you're probably familiar with the original ACR-25. Introduced in 1970, its "workhorse" reputation quickly established it as the industry standard.

But today you need more from your cassette player. Better video and audio quality. Faster and more flexible operation. Greater reliability.

And ultimately, you need a cassette player that will save you money.

Now you have one.

The ACR-225 automated cassette player and recorder is designed to minimize labor costs in on-air operation and production — while providing the video and audio quality only a digital machine can deliver.

The ACR-225 handles up to 256 32-minute cassettes, so it has the capacity to store over *10,000* thirty second spots, on-line. It records and plays back commercials, station I.D.s, public service announcements, news segments and even entire programs.

And it's fast. It will play 7-second spots continuously, back-to-back with four transports.

The ACR-225 is a *D-2 Composite Digital* machine. So while it gives you all the benefits of a digital format, it connects directly to your existing NTSC or PAL equipment.

And the ACR-225 is smart. So smart, that it can do several things at once. We call it operational *multitasking* or *multi-op.* It simply means your ACR-225 can be playing on-air, recording, and editing playlists *simultaneously.*

And that eliminates frustration, speeds up operation, and will save you money.

Why the ACR-225 makes good business sense

An ACR-225 is a good long-term investment. It is designed to save you money in operation. And it's built to deliver top performance year after year with minimal maintenance.

D-2 Composite Digital makes a lot of sense as an all-around, general purpose format, too.

It delivers all the benefits you'd expect from a digital format: Video quality that exceeds Type C, dubs without degradation, hundreds of plays with no visual deterioration, and four channels of 16-bit professional-quality audio.

But there's another reason the format makes sense: Compatibility.

The ACR-225 accepts input and provides output in composite analog *and* composite digital. So you can put an ACR-225 on line with your facility's equipment right now, *without* the costly and degrading encode/decode systems component formats require.

A unique transport system loads tape at exactly the right helix height and angle. So there's virtually no damage to recorded video, even after hundreds of threadings.

ACR-225 SYSTEM CHARACTERISTICS

MULTI-USER

The ACR-225 is a multi-user system that allows multiple simultaneous operations. Playback, recording and list management functions can be simultaneously occurring.

AUTORESOLVE™

Conflict resolution software automatically recognizes and corrects error conditions that would prevent the system from executing it's on-air playlist.

CASSETTES

Events can be stored either single event or multiple event per cassette. Both methods can be intermixed in on-line cassettes. 256 cassettes can be stored inside the ACR-225. This allows over 10,000 30-second events using multiple event storage. Each cassette is identified by its own six-digit number which is contained on human readable and barcode labels.

TRANSPORTS

The ACR system is available in a three or four transport configuration. Continuous back-to-back time is seven seconds with four transports, and ten seconds with three transports.

SIGNAL SYSTEMS

The ACR system is available with one or two signal systems. Simultaneous, independent record and play operation is possible with only one signal system. Dubbing between transports is done digitally.

AUXILIARY VIDEO/AUDIO INPUT

An auxiliary input which can be switched into the ACR-225 output under the direction of the playlist is available.

DATABASE

An integral database, managed by the PC, holds the pertinent information for 50,000 events contained on up to one million unique cassettes. Multiple ACR-225s can use one database.

INTERFACES

SERIAL BUSSES

Connectors are provided for RS-422, RS-232 and Parallel/GPI control of or from external devices attached to the serial ports. Configuration of these ports is done easily through a simple menu interface.

MACHINE CONTROL

Each of the four serial ports can be dedicated to ACE/SMPTE and Sony/SMPTE protocols when in RS-422 configuration.

PRINTERS

Printers can be connected to the RS-232 configured busses for printing reports.

TERMINALS

PC terminals can be connected to the system for remote list management and database access via the Novell Network.

GPI

General purpose inputs and outputs are provided for simple external control. Basic system operation can be controlled through several contact closure inputs.

FOR INFORMATION ON AMPEX BROADCAST VIDEO PRODUCTS CONTACT THE VIDEO SALES MANAGER NEAREST YOU.

CALIFORNIA
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ILLINOIS
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AUSTRALIA
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Nivelles

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CARIBBEAN
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Utrecht

SPAIN
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Sundbyberg

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Fribourg

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Reading, Berks.

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ACR-225 AUTORESOLVE CONFLICT RESOLUTION CAPABILITY

General

AutoResolve™ software, a standard feature with all ACR-225 digital automated cassette systems, automatically recognizes *and corrects* error conditions that would prevent the system from executing its on-air playlist. With this unique capability, the ACR-225 takes a significant step forward in station automation by resolving situations that formerly required operator intervention. It allows more short-duration events to be played within a given commercial break period. Also, it allows the user to execute the playlist on a single transport, if desired, for maximum resource utilization.

In advance of scheduled air time or during system idle time, the AutoResolve software compares the selected playlist with the contents of the ACR-225 system's library and spot database information. During this process, the system identifies any event or events which cannot be played as specified by the playlist.

Types of Conflicts or Errors Resolved

Conflicts or error conditions usually occur when there is insufficient cue time. Examples are: (1) back-to-back events are on the same cassette, but are not contiguous; (2) short events (typically under 10 seconds) are less than the system's minimum cycle time for back-to-back operation. In such situations, the system creates a buffer copy of conflicting events and, when necessary, automatically compiles an internal break tape.

Automatic Creation of Buffer Copies or Break Tapes

When the playlist is readied, any conflicting spots are automatically copied to a buffer or a complete break tape. The buffer copies or compiled breaks are recorded on pre-designated work cassettes that are reserved exclusively for the automatic conflict resolution routine. The user may select any number of work cassettes by changing the value in the Cassette Pool field from USER to AUTO.

A break tape may be created during the system's normal on-air operation without any interruption in the transmission of the playlist.

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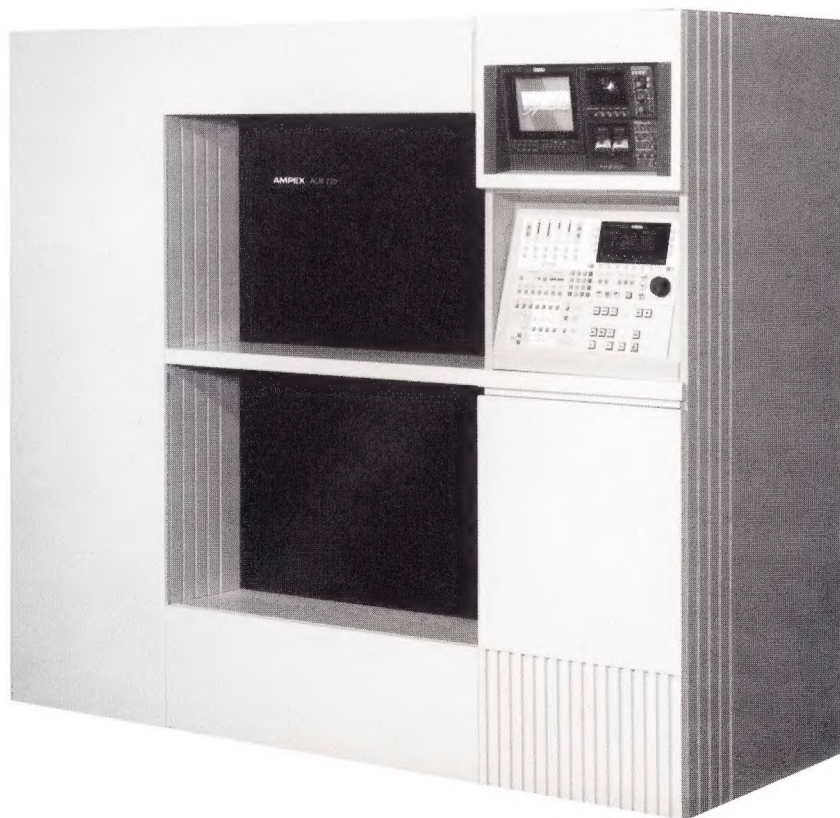
ACR-225 MULTI-GENERATION PERFORMANCE

One of the ideal features of digitized video and audio signals is the multi-generation performance that can be offered by video tape recorders that use this form of coding. The ACR-225 automated cassette system is a Composite Digital Recording Playback system designed to operate in an existing composite environment and provides distortion-free signals after many generations. It is the performance of the analog signal path that eventually restricts the number of generations obtainable from any composite digital VTR. A digital component recorder operating in a digital component environment does not suffer from this potential limitation since the interface standard for the component signal is digital, hence decoding and encoding is not necessary for each generation in such equipment.

In order to ensure the ACR-225's satisfactory performance after 20 generations, the effect of each distortion was investigated and methods developed to reduce to a minimum the cumulative effects of all analog distortions.

The causes of static signal distortion in analog circuitry that subjectively impair a television picture are well known. These are imperfect frequency response, undesirable transient response caused by group delay variations, limited signal-to-noise ratio and linearity. The chrominance signal is degraded by differential gain distortion, differential phase errors and unequal luminance and chrominance delay. If the analog circuitry in the signal path is kept to an absolute minimum, even at the expense of using additional digital circuitry, and care is taken in the design, most static distortions can be reduced to imperceptible levels of impairment of a picture even after multiple passes through such circuitry.

The low pass filters used for the analog to digital and digital to analog convertors required special attention as these components ultimately determine the bandwidth and group delay of the system. It is necessary to maintain a passband ripple of 0.05 dB or less, and a group delay variation of less than 10nec with the minimum deviation occuring in the region of the subcarrier frequency, to maintain an acceptable amplitude response and minimize luminance-to-chrominance delay. Fortunately the sampling frequency chosen for the D-2 digital composite VTR is 4Fsc, which is considered super-Nyquist for the system bandwidth involved. The filter's transition band performance may be relaxed somewhat and although critical alignment is required, these filters can be realized and tuned with relative ease to achieve the desired specifications.

The sampling process of the analog to digital convertor introduces quantizing noise that, in the presence of a normal television picture, is unnoticeable. After cumulative generations this noise does degrade, but not in a linear matter. Usually the linearity of the analog to digital convertor is specified as a fraction of the least significant bit, which is unnoticeable on the first conversion. After many conversions this distortion does increase, particulary if the signal is passed through the same convertor each time, and may become noticeable after many tape generations. As nearly all convertors in use today are monolithic integrated circuits, only care in specifying, and inspection of these devices can ensure superb performance in any composite digital VTR.

The timing information for the television signal that resides in the horizontal blanking interval is not preserved for recording onto the video tape. It is redundant, for the data clock and special data synchronizing signals embedded in the data stream contain the necessary timing information. The sampling phase for the analog to digital convertor clock is defined with respect to the phase of the chroma and is calculated by measuring the color burst phase. The slightest measurement error could accumulate over many generations and seriously impair the picture. For this reason the measurement is made on the digitized signal, after analog to digital conversion, in a feedback loop that encompasses the analog to digital convertor. The black level, which is defined as a precise level in the digitized signal, is also maintained by a similar feedback loop.

The RF channel, including the head to tape interface, is the source of noise that introduces errors in the digital data. The use of a powerful error correction system corrects nearly all errors, including those caused by tape dropouts, under normal operating conditions. Severe tape dropouts that produce errors exceeding the error decoder's correction (but not detection) ability can be concealed by techniques that make use of the redundancy inherent in a television picture. Only under the most adverse operating conditions will the limitations of the RF channel and tape produce visible distortions that will degrade the signal. They do not therefore limit the number of generations that can be realized.

Consideration must be given to other studio equipment in the recording path such as distribution amplifiers, routing and production switchers and the equalization of coaxial cable. Static analog distortions can accumulate as the signal routinely passes through such equipment with each VTR generation.

Satisfactory multi-generation performance of the ACR-225 was achieved by keeping the analog circuitry within the recorder to a minimum. Filters are available for 4Fsc sampling of video signals that can offer adequate performance without a high degree of complexity. The RF channel does not contribute to signal distortions under normal operating conditions. The remaining distortions are the linearity of the analog to digital convertor and the quantizing noise of the sampled signal, both of which are maintained to provide quality in a composite environment after many analog generations.

COMPOSITE DIGITAL

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ACR-225 NTSC SPECIFICATIONS

Specification	NTSC
General	
Power Requirements:	50/60 Hz
	190-260 ± 10% Volts, AC, Single Phase
Power Consumption:	
Avg.	4000 Watts
Peak	5500 Watts
Operating Environment	
Temperature	5°C-35°C
Humidity	10%-90% noncondensing
Size	203cm (H) × 220cm (W) × 80cm (D)
	80in (H) × 86.5in (W) × 31.5in (D)
	(+ 2in/50mm for skins)
Weight	1091 kg (2400 lbs)
Recording Format	**D-2 Composite Digital**
Tape Speed	131.7mm/sec
Writing Speed	30.428m/sec
Record Time	32 min. small cassette
Cassette Types	D-2 Series S
Recommended Tape	Class 1500 tape
	Ampex 319 or equivalent
Transport Characteristics	
Shuttle Speed	±7.9m/sec (60x Play)
Acceleration (maximum)	7.9m/sec^2
Fast Forward/Rewind Speed	34 sec for 32 min.—S cassette
Tape Timer Accuracy	±1 Frame (with continuous CTL)
Video	
Sampling Frequency	4 × FSc
Quantization	8 bits
Channel Coding	Miller^2
Bandwidth	5.5 MHz ± 0.2 dB
	6.0 MHz − 1 dB
S/N	≥54 dB (luminance)
D.G.	≤2.0% (ramp with 40 IRE subcarrier)
D.φ	≤1.0°
K Factor	≤1.0% (2T)
Y/C Delay	≤10 nsec (20T)
Y/C xtalk	≤1.0%, IRE
Moire	Not applicable
Line Tilt	≤0.5%
Field Tilt	≤1.0%
Color Gen. Lock Stability	≤0.2°
Analog Multi-Generation	
20 Generations (4.5 per CCIR Recommendation 500-3)	
Digital Multi-Generation	
>20 Generations	

Specification	NTSC
Audio	
Sampling Frequency	48 kHz (synchronized to video)
Quantization	16 bits
Frequency Response	20 Hz – 20 kHz ± 0.5 dB
Dynamic Range	≥90 dB at 1 kHz (ANSI "A" weighted, pre-emphasis ON)
Headroom	20 dB
Distortion	≤0.05% 20 Hz to 20 kHz (at operating level, pre-emphasis ON)
Crosstalk	− 80 dB (at 1 kHz)
Operating Level	− 8 dBm to + 8 dBm (1 dB increments)
Input/Output Level Range	− ∞ to + 28 dB
Wow and Flutter	Not applicable
Cue	
Frequency Response	300 Hz – 10 kHz + 2/− 3 dB
S/N	≥40 dB, 500 Hz – 10 kHz
Distortion	≤1.0% (1 kHz @ operating level)
Operating Level	− 8 dBm to + 8 dBm (1 dB increments)
Signal Inputs	
Video: Analog	0.5 V to 2.0 V p-p (75 Ω BNC)
Digital	D-2 Parallel Interface
Reference	Composite (Video or Black Burst) (High impedance bridging, BNC)
Audio: Analog	Max. + 28 dBm (50k Ω)
Digital	D-2 Parallel Interface
Cue	Max. + 28 dBm (50k Ω)
Timecode	2.4 V ± 1.4 V p-p (nominal) (10k Ω)
Signal Outputs	
Video: Analog	2 each @ 1.0 Volt p-p (75 Ω BNC)
Digital	D-2 Parallel Interface
Audio: Analog	Max. + 28 dBm Balanced + 22 dBm, Unbalanced (<30 Ω)
Digital	D-2 Parallel Interface
Cue	Max. + 14 dBm Balanced, + 8 dBm Unbalanced (<50 Ω)
Timecode	2.4 Volt p-p (<300 Ω)
Character Video	1.0 Volt p-p (75 Ω BNC)
Waveform Monitor	1.0 Volt p-p (75 Ω BNC)
Picture Monitor	1.0 Volt p-p (75 Ω BNC)
Headphones	300 milliwatt (150 Ω)
Audio Monitor	− 16 dBµ (100 Ω source)
Remotes	Four serial ports are supported. Two can be easily user configured as RS-232 or RS-422 for external device control.
RS-422	4 each, 9 pin D, Serial
RS-232	4 each, 25 pin D, Serial
GPI	1 each, 25 pin D, Parallel

Specifications subject to change without notice or obligation.

D2 COMPOSITE DIGITAL

AMPEX

ACR-225 PAL SPECIFICATIONS

Specification	PAL
General	
Power Requirements:	50/60 Hz
	190-260 ± 10% Volts, AC, Single Phase
Power Consumption:	
Avg.	4000 Watts
Peak	5500 Watts
Operating Environment	
Temperature	5°C-35°C
Humidity	10%-90% noncondensing
Size	203cm (H) × 220cm (W) × 80cm (D)
	80in (H) × 86.5in (W) × 31.5in (D)
	(+ 2in/50mm for skins)
Weight	1091 kg (2400 lbs)
Recording Format	D-2 Composite Digital
Tape Speed	131.7mm/sec
Writing Speed	30.428m/sec
Record Time	32 min. small cassette
Cassette Types	D-2 Series S
Recommended Tape	Class 1500 tape
	Ampex 319 or equivalent
Transport Characteristics	
Shuttle Speed	±7.9m/sec (60x Play)
Acceleration (maximum)	7.9m/sec^2 S
Fast Forward/Rewind Speed	34 sec for 32 min.
Tape Timer Accuracy	±1 Frame (with continuous CTL)
Video	
Sampling Frequency	4 × FSc
Quantization	8 bits
Channel Coding	Miller^2
Bandwidth	6.0 MHz ± 0.2 dB (PAL)
	6.5 MHz − 1 dB (PAL)
S/N	≥54 dB (luminance)
D.G.	≤2.0% (ramp with 40 IRE subcarrier)
D.φ	≤1.0°
K Factor	≤1.0% (2T)
Y/C Delay	≤10 nsec (20T)
Y/C xtalk	≤1.0%, IRE
Moire	Not applicable
Line Tilt	≤0.5%
Field Tilt	≤1.0%
Color Gen. Lock Stability	≤0.2°
Analog Multi-Generation	
20 Generations (4.5 per CCIR Recommendation 500-3)	
Digital Multi-Generation	
>20 Generations	

Specification	PAL
Audio	
Sampling Frequency	48 kHz (synchronized to video)
Quantization	16 bits
Frequency Response	20 Hz − 20 kHz ± 0.5 dB
Dynamic Range	≥90 dB at 1 kHz (ANSI "A" weighted, pre-emphasis ON)
Headroom	20 dB
Distortion	≤0.05% 20 Hz to 20 kHz (at operating level, pre-emphasis ON)
Crosstalk	−80 dB (at 1 kHz)
Operating Level	−8 dBm to + 8 dBm (1 dB increments)
Input/Output Level Range	−∞ to + 28 dB
Wow and Flutter	Not applicable
Cue	
Frequency Response	300 Hz − 10 kHz + 2/−3 dB
S/N	≥40 dB, 500 Hz − 10 kHz
Distortion	≤1.0% (1 kHz @ operating level)
Operating Level	−8 dBm to + 8.0 dBm (1 dB increments)
Signal Inputs	
Video: Analog	0.5 V to 2.0 V p-p (75 Ω BNC)
Digital	D-2 Parallel Interface
Reference	Composite (Video or Black Burst) (High impedance bridging, BNC)
Audio: Analog	Max. + 28 dBm (50k Ω)
Digital	D-2 Parallel Interface
Cue	Max. + 28 dBm (50k Ω)
Timecode	2.4 V ± 1.4 V p-p (nominal) (10k Ω)
Signal Outputs	
Video: Analog	2 each @ 1.0 Volt p-p (75 Ω BNC)
Digital	D-2 Parallel Interface
Audio: Analog	Max. + 28 dBm Balanced + 22 dBm, Unbalanced (<30 Ω)
Digital	D-2 Parallel Interface
Cue	Max. + 14 dBm Balanced, + 8 dBm Unbalanced (<50 Ω)
Timecode	2.4 Volt p-p (<300 Ω)
Character Video	1.0 Volt p-p (75 Ω BNC)
Waveform Monitor	1.0 Volt p-p (75 Ω BNC)
Picture Monitor	1.0 Volt p-p (75 Ω BNC)
Headphones	300 milliwatt (150 Ω)
Audio Monitor	−16 dBμ (100 Ω source)
Remotes	Four serial ports are supported. Two can be easily user configured as RS-232 or RS-422 for external device control.
RS-422	4 each, 9 pin D, Serial
RS-232	4 each, 25 pin D, Serial
GPI	1 each, 25 pin D, Parallel

Specifications subject to change without notice or obligation.

COMPOSITE DIGITAL

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RCP-200

REMOTE CONTROL PANEL FOR D2 FORMAT RECORDERS

General

The RCP-200 remote control panel is a digital controller designed to operate with all Ampex D2 recorders. In conjunction with a picture monitor and a waveform monitor/vectorscope, the RCP-200 provides a simple and cost-effective system for monitoring and adjusting the input and output parameters of up to four VTRs.

Description

The RCP-200 control panel is a single rack height unit that controls the input/output video *and audio* functions of up to four machines. Remote machine control is accomplished by using ACE SMPTE protocol over the RS 422 interface. Audio and video operational adjustments are available on dedicated center return potentiometers. All four digital audio channels can be precisely adjusted by monitoring signal levels, using the on-screen audio bargraph display that is a feature of Ampex D2 machines. Video adjustments are simplified by the provision of separately lighted unity buttons for each function. Additionally, the RCP-200 control panel accepts and produces general purpose interface (GPI) inputs and outputs to simplify interconnection with external signal routing and monitoring devices.

Features

- ☐ Will select and control up to four VPR-200 or VPR-300 Series VTRs.
- ☐ Combines audio and video adjustments on a single panel.
- ☐ Easy to operate, straightforward controls.
- ☐ Simple knob-per-function human interface with separate unity settings.
- ☐ Easy systems integration with master/slave machine switching capability.
- ☐ GPI interface designed for direct control of waveform monitor input switching.
- ☐ Compact size (1 rack unit high) permits convenient installation in monitor bridges or with rack mounted equipment.
- ☐ Universal power supply with detachable power cord for easy installation.
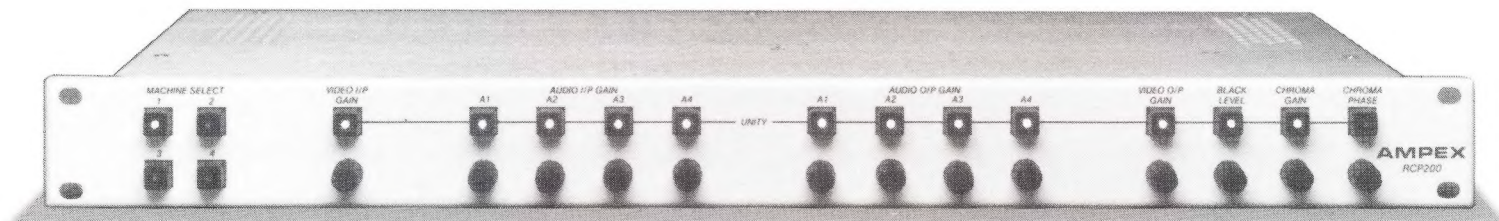
Range of Control (of a VPR-200 or VPR300 Series VTR)

VIDEO

Input Signal (Analog)
Video Gain   ± 6 dB

Output Signal (Analog/Digital)
Video Gain   Off to + 3 dB
Chroma Gain   Off to + 3 dB
Black Level   ± 10 IRE (NTSC)
           ± 10% (PAL)

Output Signal (Analog)
Chrominance Phase   ± 20 degrees

AUDIO (Control of four (4) digital channels)

Input Signal (Analog)
Audio Gain   Off to + 14 dB

Output Signal (Analog/Digital)
Audio Gain   Off to + 14 dB

PHYSICAL CHARACTERISTICS

Chassis Dimensions
Height: 1.70" (43 mm) (I Rack unit high)
Width: 17.5" (441 mm) (I Rack unit wide)
Depth: 8" (202 mm)

NOTE: The unit is designed for rack mounting with front access. It is secured in the rack with rack ears and standard mounting holes, which are integral parts of the unit.

OPERATING CONDITIONS

Temperature   0-45 degrees C
Humidity   5-95% RH (non-Condensing)

POWER REQUIREMENTS

Input Power Requirements   Worldwide 50/60 Hz standards without reconfiguration
Power Consumption   Less than 20 watts

INPUT/OUTPUT SIGNALS

Machine Control:

No. of machines controlled   Up to four (4) recorders can be controlled by four (4) separate connectors

Machine Communications   All VTR serial control is carried out over an EIA standard RS-422 interconnection system. ACE SMPTE protocol is used for message transfer.

GPI INTERFACE

Connector   A single 25 pin sub-miniature D type connector
Pin Assignment   See Installation Manual

Specifications subject to change without notice or obligation.

AMPEX

DCT COMPOSITE DIGITAL